

LEE - 10/743,454

Attorney Docket No.: 021906-0307405

- Response to Final Rejection -**REMARKS**

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

In the Final Office Action dated December 22, 2005, the Examiner rejected claim 1, under 35 U.S.C. 103(a), as allegedly being unpatentable over Wang '635 (US 6,395,635) in view of Wang '745 (US 2003/0003745).

I. Claim Rejections under 35 U.S.C. 103(a)

The rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over Wang '635 in view of Wang '745 has been carefully considered but is most respectfully traversed.

Applicant wishes to direct the Examiner's attention to the basic requirements of a prima facie case of obviousness as set forth in the MPEP § 2143. This section states that to establish a prima facie case of obviousness, three basic criteria first must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Further, MPEP §2143.03 states that all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

The present invention provides a method for planarizing a surface of a semiconductor wafer and positively recites that the method includes *two polishing processes* to remove a total polishing target. A first polishing process is performed on a surface of the insulator layer deposited on the semiconductor wafer by employing

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slurry to the surface of the insulator layer to polish about 80% thickness of a total polishing target of the insulator layer. A second polishing process is performed on the surface of the insulator layer by employing water to polish the remainder of the layer. In this manner the cost of the product is decreased compared with conventional CMP processes that only employ slurry because slurry residue scratches are prevented.

In contrast, Wang '635 discloses a method for reduction of tungsten damascene residue using a CMP process. That is, Wang '635 describes a method for polishing an exposed surface *after* a main CMP process for removing tungsten on a semiconductor wafer. In so doing, Wang '635 teaches a polishing and buffing procedure in which a first pad used for polishing is different than a second pad used for buffing. As such, the Wang '635 focuses on removing tungsten residue after a main CMP, whereas the present invention is directed to the main CMP.

Moreover, there is nothing in any of the applied references, including Wang '635, that teaches the removal of slurry residue.

Furthermore, Wang '745 does nothing to cure the deficiencies identified above relative to Wang '635.

For at least these reasons, Applicant submits neither the Wang '635 nor Wang '745, whether taken independently or in combination, teach the combination of elements recited by claim 1. As such, the immediate withdrawal of the rejection of claim 1, under 35 U.S.C. §103(a), is respectfully requested.

II. Conclusion

Applicant believes that this is a full and complete response to the Office Action. For the reasons discussed above, Applicant now respectfully submits that claim 1 is in complete condition for allowance. Accordingly, it is respectfully requested that the Examiner's rejections be withdrawn and that claim 1 be allowed in its present form.

Should the Examiner require or consider it advisable that the specification, claims an/or drawings be further amended or corrected in formal respects, in order to place the case in condition for final allowance, then it is respectfully requested that

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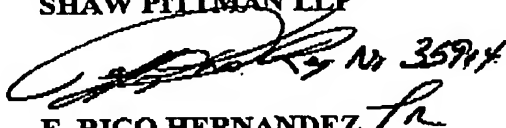
such amendment or correction be carried out by Examiner's Amendment and the case be passed to issue.

Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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